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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/804,134	03/19/2004	Kenichi Takada	0666.1560003/TGD/EDH	6382

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EXAMINER	
LOPEZ, FRANK D	
ART UNIT	**PAPER NUMBER**
3745	

DATE MAILED: 05/26/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/804,134	TAKADA ET AL.	
	Examiner	Art Unit	
	F. Daniel Lopez	3745	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *41-73* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *41-73* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☒ Certified copies of the priority documents have been received in Application No. 09/695,661.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *3/19/04*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

Claim Rejections - 35 USC § 112

Claims 43-73 and are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 43, 53 and 63 line 10-11 "charge fluid flows from a charge fluid inlet into a first valve, then into a charge fluid passage, and into a second valve" is confusing. Suggest that "first valve" and "second valve" be replaced by --first valve plug-- and --second valve plug--, respectively, since fig 5 shows the flow into the plugs 76 and 75.

In claim 56 line 2 "said check valve" has no antecedent basis, suggest that it depend from claim 55.

In claim 58 line 6 and claim 58 line 2 "an opening of said charge fluid passage" appears to be the same as the "charge fluid inlet" of claim 53 line 10.

In claim 62 line 1-3 "charge fluid passage...is disposed adjacent to said drain fluid passage...is disposed adjacent to said second side" appears to be missing the phrase—said first side of said end of said center section, and wherein said opening of—between "adjacent to" and "said drain fluid passage".

In claim 63 line 12-13 "a first check valve interposed between said charge fluid passage and said first fluid passage" or line 15-16 "a second check valve interposed between said charge fluid passage and said second fluid passage" is wrong. Claim 63 line 10 -11 clearly defines the charge fluid passage as that portion (82, fig 5) of a passage in the center section between the first and second plugs (76, 75). The check valve in the second plug (75) is between the charge fluid passage and the associated fluid passage, but the check valve in the first plug (76) is between the charge fluid inlet and the associated fluid passage, not the charge fluid passage and the associated fluid passage.

In claim 65 line 2 "said third check valve" has no antecedent basis, suggest that it depend from claim 64.

Claims not specifically mentioned are indefinite, since they depend from one of the above claims.

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970);and, *In re Thorington,* 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 41 and 42 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 26 of U.S. Patent No.6,508,059. Although the conflicting claims are not identical, they are not patentably distinct from each other because the claims in the instant application are broader than the corresponding claims in the above patent.

Claims 43, 45; 44; 46; 47; 48; 49; 50; 51; and 52 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1, 10 or 19; 2, 12 or 19; 3, 11 or 20; 4; 5, 14 or 21; 7, 15 or 22; 8, 16 or 23; 9, 17 or 24; and 6, 18 or 25; respectively, of U.S. Patent No.6,508,059 in view of Shimizu et al.

Claims 53 and 55, 54; 56; and 57-62; are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 10 or 26; 12 or 26; 11; 13 or 27; and 14-18; respectively, of U.S. Patent No.6,508,059 in view of Shimizu et al.

Claims 63, 64; 65-71 and 73 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 20-26; and 28; respectively, of U.S. Patent No.6,508,059 in view of Shimizu et al.

Although the conflicting claims are not identical, they are not patentably distinct from each other because the claims in the instant application are broader than or the same as the corresponding claims in the above patent; except that the corresponding claims do not claim the charge fluid flows from a charge fluid inlet into a first valve, then into a charge fluid passage, and into a second valve.

Shimizu et al teaches, for a hydrostatic transmission comprising first and second fluid passages (5'a, 5'b) connected between a pump and a motor, constituting a closed fluid circuit; a charge fluid passage connected to each of the first and second fluid passages, to supply fluid from a sump; that charge fluid flows from a charge fluid inlet into a first valve plug (70, fig 5), then into a charge fluid passage, and into a second valve (70).

Since the above claims of U.S. Patent No.6,508,059 do not claim details of how the charge fluid passage is connected to the sump and Shimizu et al does; it would have been obvious at the time the invention was made to one having ordinary skill in the art to allow charge fluid to flow from a charge fluid inlet into a first valve, then into a charge fluid passage of the above claims of U.S. Patent No.6,508,059, and into a second valve, as taught by Shimizu et al, as a matter of engineering expediency.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. § 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless --
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 41, 43, 47 and 53 are rejected under 35 U.S.C. § 102(b) as being anticipated by Shimizu et al (see discussion below).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. § 103 which forms the basis for all obviousness rejections set forth in this Office action:

> A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.
> Subject matter developed by another person, which qualifies as prior art only under subsection (f) or (g) of section 102 of this title, shall not preclude patentability under this section where the subject matter and the claimed invention were, at the time the invention was made, owned by the same person or subject to an obligation of assignment to the same person.

Claims 43, 44, 54, 63 and 71 are rejected under 35 U.S.C. § 103 as being unpatentable over Shimizu et al in view of Komura et al. Shimizu et al discloses a hydrostatic transmission comprising first and second fluid passages (5'a, 5'b) connected between a pump (16, fig 2) and a motor (17, fig 2), constituting a closed fluid circuit; a charge fluid passage connected to each of the first and second fluid passages, to supply fluid from a sump, allowing charge fluid to flow from a charge fluid inlet into a first valve plug (70, fig 5), then into a charge fluid passage, and into a second valve plug (70), wherein first and second check valves are interposed between the charge fluid inlet and first and second fluid passages, respectively, allowing flow only from the charge fluid inlet; a drain fluid passage including an orifice (e.g. 64c), connected to one of the first and second fluid passages and allowing excessive fluid to drain, through a slot in a pump displament control plate (39'c), when the pump is near a neutral position; wherein the drain and charge passages are open to the sump, but separated from each other; with the charge passage open inside a filter (56, fig 2) and the drain passage open outside of the filter; but does not disclose that there is a relief valve in the drain passage which closes when pressure in the fluid passage connected to the drain passage is increased beyond a predetermined degree.

Komura et al teaches, for a hydrostatic transmission comprising first and second fluid passages (39) connected between a pump (25) and a motor (26), constituting a closed fluid circuit; a charge fluid passage (42) connected to each of the first and second fluid passages, to supply fluid from a sump; a drain fluid passage (47) including

an orifice (52), connected to one of the first and second fluid passages and allowing excessive fluid to drain; wherein the drain and charge passages are open to the sump; that there is a relief valve(53) in the drain passage which closes when pressure in the fluid passage connected to the drain passage is increased beyond a predetermined degree, for the purpose of draining excessive oil when the pump is close to but not in a neutral position (e.g. column 7 line 12-32)..

Since the drain passages of Shimizu et al and Komura et al are functionally equivalent in the hydrostatic transmission art (i.e. they perform the same function); it would have been obvious at the time the invention was made to one having ordinary skill in the art to replace the slot in the pump displacement plate of Shimizu et al with a relief valve in the drain passage which closes when pressure in the fluid passage connected to the drain passage is increased beyond a predetermined degree, as taught by Komura et al, as a matter of engineering expediency.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dan Lopez whose telephone number is 571- 272-4821. The examiner can normally be reached on Monday-Thursday from 6:15 AM -3:45PM. The examiner can also be reached on alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ed Look, can be reached on 571-272-4820. The fax number for this group is (703) 872-9306. Any inquiry of a general nature should be directed to the Help Desk, whose telephone number is 1-800-PTO-9199.

F. Daniel Lopez
Primary Examiner
Art Unit 3745
May 24, 2005